PORTABLE COMPUTING DEVICE HAVING A DISPLAY MOVABLE THEREABOUT

CROSS-REFERENCE TO RELATED APPLICATION

This application contains subject matter which is related to the subject matter of the following application, which is assigned to the same assignee as this application. The below-listed application is hereby incorporated herein by reference in its entirety:

"FLEXIBLY INTERFACEABLE PORTABLE COMPUTING DEVICE," by Karidis et al., Ser. No. 09/070,391, filed Apr. 30, 1998.

TECHNICAL FIELD

This invention relates, generally, to portable computers and, more particularly, to movable displays for portable computers having a keyboard and a handwriting recording medium.

BACKGROUND ART

Many users find a laptop or notebook computer to be convenient because of its portabability. For instance, a user may take the portable computer out of the office or away from standard power outlets and continue to enjoy the processing capabilities of the computer.

Earlier portable computers employing a keyboard have presented difficulties to the user in confined spaces, such as in an airplane. Typically, the larger the physical size of a laptop computer, the less likely the computer may be opened and used when space behind the computer is limited.

Exemplary computing devices employing a display, a keyboard, and a handwriting recording unit are disclosed in the above-incorporated application Ser. No. 09/070,391. For instance, such a computerized recording unit may digitize text concurrently with hand writing thereof so that the handwritten text may be processed as data. The digitization equipment may, for example, employ a digitizing tablet to generate data that represents coordinates of an electronic stylus applied thereto.

However, it remains desirable to provide refinements which allow, for example, use of just the capabilities of the recording unit and the display in a compact arrangement, while the keyboard remains available to be used with the display at a later time. For instance, an executive at a meeting may desire to use the capabilities of only the recording unit and the display during the meeting. So, an exposure or visible presence of the keyboard may undesirably occupy table, lap, or desk space, and may disadvantageously create or imply crowding or cluttering.

Thus, a need exists for a display offering improved movability of the display about a computing device having a keyboard. A further need exists for a portable computing device allowing enhanced usability in confined spaces. Also, a need exists for a computing device whose display may be moved to promote usability of the computing device despite or in view of limitations of space to the rear of the computing device. Another need exists for a computing device having display, keyboarding, and recording capabilities, and presenting decreased weight or profile. A still further need exists for a computing device with display, keyboarding, and recording capabilities, and offering increased speed or integration of functions.

SUMMARY OF THE INVENTION

Pursuant to the present invention, shortcomings of the existing art are overcome and additional advantages are provided through the provision of a portable computing device having a display movable thereabout.

In one aspect of the invention, a portable computing device includes a support structure having a body. A first face portion of the body is generally directed in a first direction. A second face portion of the body is generally directed in a second direction, which is different from the first direction. A processing unit is supported with the body. A keyboard is coupled with the processing unit and forms the first face portion of the body. The keyboard is configured to communicate a first datum to the processing unit in response to user operation of the keyboard. A recording medium is coupled with the processing unit and forms the second face portion of the body. The recording medium is configured to communicate a second datum to the processing unit in response to user operation of a stylus when the recording medium is superimposed with the stylus. A display is coupled with the processing unit and is movably connected with the body. The display is movable to a first location and a second location. The first location of the display allows user viewing of the display during user operation of the keyboard. The second location of the display allows user viewing of the display during user operation of the stylus.

The display can be pivotable and/or translatable to the first location and the second location.

In another aspect of the invention, a portable computing device includes a support structure having a body. A processing unit is supported with the body. A keyboard is coupled with the processing unit and is connected with the body. The keyboard is configured to communicate a datum to the processing unit in response to user operation of the keyboard. An elongatable arm is connected with the body. A display is coupled with the processing unit and is connected with the elongatable arm. The elongatable arm allows relative movement between the display and the body along a longitudinal axis of the elongatable arm to move the display to a selected location. The selected location of the display allows user viewing of the display during user operation of the keyboard.

The display can be foldable against a part of the body.

The invention further contemplates a portable computing method. A keyboard is employed to form a first face portion of a body of a support structure. The first face portion of the body is generally directed in a first direction. A recording medium is employed to form a second face portion of the body. The second face portion of the body is generally directed in a second direction, which is different from the first direction. The recording medium is configured to receive a signal from user operation of a stylus when the recording medium is superimposed with the stylus. A display is movably connected with the body. The display is movable to a first location and a second location. The first location of the display allows user viewing of the display during user operation of the keyboard. The second location of the display allows user viewing of the display during user operation of the stylus.

The display can be employed to allow user viewing of a first visual element responsive to user operation of the keyboard. The display can be employed to allow user viewing of a second visual element responsive to user operation of the stylus.

Thus, the present invention advantageously provides a display movable to selected locations for allowing use of the display with a keyboard or a recording medium, where the keyboard and the recording medium are generally directed